been developed in years past. The unswerving goal of mental health research is to develop and refine clinical treatments as well as preventive interventions that are based on an understanding of specific mechanisms that can contribute to or lead to illness but also can protect and enhance mental health.

Mental health clinical research encompasses studies that involve human participants, conducted, for example, to test the efficacy of a new treatment. A noteworthy feature of contemporary clinical research is the new emphasis being placed on studying the effectiveness of interventions in actual practice settings. Information obtained from such studies increasingly provides the foundation for services research concerned with the cost, cost-effectiveness, and "deliverability" of interventions and the design—including economic considerations—of service delivery systems.

Organization and Financing of Mental Health Care. Another of the defining trends has been the transformation of the mental illness treatment and mental health services landscapes, including increased reliance on primary health care and other human service providers. Today, the U.S. mental health system is multifaceted and complex, comprising the public and private sectors, general health and specialty mental health providers, and social services, housing, criminal justice, and educational agencies. These agencies do not always function in a coordinated manner. Its configuration reflects necessary responses to a broad array of factors including reform movements, financial incentives based on who pays for what kind of services, and advances in care and treatment technology. Although the hybrid system that exists today serves diverse functions well for many people, individuals with the most complex needs and the fewest financial resources often find the system fragmented and difficult to use. A challenge for the Nation in the near-term future is to speed the transfer of new evidence-based treatments and prevention interventions into diverse service delivery settings and systems, while ensuring greater coordination among these settings and systems.

Consumer and Family Movements. The emergence of vital consumer and family movements promises to shape the direction and complexion of mental health programs for many years to come. Although divergent in their historical origins and philosophy, organizations representing consumers and family members have promoted important, often overlapping goals and have invigorated the fields of research as well as treatment and service delivery design. Among the principal goals shared by much of the consumer movement are to overcome stigma and prevent discrimination in policies affecting persons with mental illness; to encourage self-help and a focus on recovery from mental illness; and to draw attention to the special needs associated with a particular disorder or disability, as well as by age or gender or by the racial and cultural identity of those who have mental illness.

Chapter 2 of the report was written to provide background information that would help persons from outside the mental health field better understand topics addressed in subsequent chapters of the report. Although the chapter is meant to serve as a mental health primer, its depth of discussion supports a range of conclusions:

- 1. The multifaceted complexity of the brain is fully consistent with the fact that it supports all behavior and mental life. Proceeding from an acknowledgment that all psychological experiences are recorded ultimately in the brain and that all psychological phenomena reflect biological processes, the modern neuroscience of mental health offers an enriched understanding of the inseparability of human experience, brain, and mind.
- 2. Mental functions, which are disturbed in mental disorders, are mediated by the brain. In the process of transforming human experience into physical events, the brain undergoes changes in its cellular structure and function.

#### Mental Health: A Report of the Surgeon General

- 3. Few lesions or physiologic abnormalities define the mental disorders, and for the most part their causes remain unknown. Mental disorders, instead, are defined by signs, symptoms, and functional impairments.
- 4. Diagnoses of mental disorders made using specific criteria are as reliable as those for general medical disorders.
- 5. About one in five Americans experiences a mental disorder in the course of a year. Approximately 15 percent of all adults who have a mental disorder in one year also experience a co-occurring substance (alcohol or other drug) use disorder, which complicates treatment.
- 6. A range of treatments of well-documented efficacy exists for most mental disorders. Two broad types of intervention include psychosocial treatments—for example, psychotherapy or counseling—and psychopharmacologic treatments; these often are most effective when combined.
- 7. In the mental health field, progress in developing preventive interventions has been slow because, for most major mental disorders, there is insufficient understanding about etiology (or causes of illness) and/or there is an inability to alter the *known* etiology of a particular disorder. Still, some successful strategies have emerged in the absence of a full understanding of etiology.
- 8. About 10 percent of the U.S. adult population uses mental health services in the health sector in any year, with another 5 percent seeking such services from social service agencies, schools, religious, or self-help groups. Yet critical gaps exist between those who need service and those who receive service.
- 9. Gaps also exist between optimally effective treatment and what many individuals receive in actual practice settings.
- 10. Mental illness and less severe mental health problems must be understood in a social and cultural context, and mental health services

- must be designed and delivered in a manner that is sensitive to the perspectives and needs of racial and ethnic minorities.
- 11. The consumer movement has increased the involvement of individuals with mental disorders and their families in mutual support services, consumer-run services, and advocacy. They are powerful agents for changes in service programs and policy.
- 12. The notion of recovery reflects renewed optimism about the outcomes of mental illness, including that achieved through an individual's own self-care efforts, and the opportunities open to persons with mental illness to participate to the full extent of their interests in the community of their choice.

# Mental Health and Mental Illness Across the Lifespan

The Surgeon General's report takes a lifespan approach to its consideration of mental health and mental illness. Three chapters that address, respectively, the periods of childhood and adolescence, adulthood, and later adult life beginning somewhere between ages 55 and 65, capture the contributions of research to the breadth, depth, and vibrancy that characterize all facets of the contemporary mental health field.

The disorders featured in depth in Chapters 3, 4, and 5 were selected on the basis of the frequency with which they occur in our society, and the clinical, societal, and economic burden associated with each. To the extent that data permit, the report takes note of how gender and culture, in addition to age, influence the diagnosis, course, and treatment of mental illness. The chapters also note the changing role of consumers and families, with attention to informal support services (i.e., unpaid services), with which many consumers are comfortable and upon which they depend for information. Persons with mental illness and, often, their families welcome a proliferating array of support services—such as self-help programs, family self-help, crisis services, and advocacythat help them cope with the isolation, family disruption, and possible loss of employment and housing that may accompany mental disorders. Support services can help to dissipate stigma and to guide patients into formal care as well.

Mental health and mental illness are dynamic, ever-changing phenomena. At any given moment, a person's mental status reflects the sum total of that individual's genetic inheritance and life experiences. The brain interacts with and responds—both in its function and in its very structure—to multiple influences continuously, across every stage of life. At different stages, variability in expression of mental health and mental illness can be very subtle or very pronounced. As an example, the symptoms of separation anxiety are normal in early childhood but are signs of distress in later childhood and beyond. It is all too common for people to appreciate the impact of developmental processes in children, yet not to extend that conceptual understanding to older people. In fact, people continue to develop and change throughout life. Different stages of life are associated with vulnerability to distinct forms of mental and behavioral disorders but also with distinctive capacities for mental health.

Even more than is true for adults, children must be seen in the context of their social environments—that is, family and peer group, as well as that of their larger physical and cultural surroundings. Childhood mental health is expressed in this context, as children proceed along the arc of development. A great deal of contemporary research focuses on developmental processes, with the aim of understanding and predicting the forces that will keep children and adolescents mentally healthy and maintain them on course to become mentally healthy adults. Research also focuses on identifying what factors place some at risk for mental illness and, yet again, what protects some children but not others despite exposure to the same risk factors. In addition to studies of normal development and of risk factors, much research focuses on mental disorders in childhood and adolescence and what can be done to prevent or treat these conditions and on the design and operation of service settings best suited to the needs experienced by children.

For about one in five Americans, adulthood—a time for achieving productive vocations and for sustaining close relationships at home and in the community—is interrupted by mental illness. Understanding why and how mental disorders occur in adulthood, often with no apparent portents of illness in earlier years, draws heavily on the full panoply of research conducted under the aegis of the mental health field. In years past, the onset, or occurrence, of mental illness in the adult years, was attributed principally to observable phenomena—for example, the burden of stresses associated with career or family, or the inheritance of a disease viewed to run in a particular family. Such explanations now may appear naive at best.

Contemporary studies of the brain and behavior are racing to fill in the picture by elucidating specific neurobiological and genetic mechanisms that are the platform upon which a person's life experiences can either strengthen mental health or lead to mental illness. It now is recognized that factors that influence brain development prenatally may set the stage for a vulnerability to illness that may lie dormant throughout childhood and adolescence. Similarly, no single gene has been found to be responsible for any specific mental disorder; rather, variations in multiple genes contribute to a disruption in healthy brain function that, under certain environmental conditions, results in a mental illness. Moreover, it is now recognized that socioeconomic factors affect individuals' vulnerability to mental illness and mental health problems. Certain demographic and economic groups are more likely than others to experience mental health problems and some mental disorders. Vulnerability alone may not be sufficient to cause a mental disorder; rather, the causes of most mental disorders lie in some combination of genetic and environmental factors, which may be biological or psychosocial.

The fact that many, if not most, people have experienced mental health problems that mimic or even match some of the symptoms of a diagnosable mental disorder tends, ironically, to prompt many people to underestimate the painful, disabling nature of severe mental illness. In fact, schizophrenia, mood disorders such as major depression and bipolar illness, and anxiety often are devastating conditions. Yet relatively few mental illnesses have an unremitting course marked by the most acute manifestations of illness; rather, for reasons that are not yet understood, the symptoms associated with mental illness tend to wax and wane. These patterns pose special challenges to the implementation of treatment plans and the design of service systems that are optimally responsive to an individual's needs during every phase of illness. As this report concludes, enormous strides are being made in diagnosis, treatment, and service delivery, placing the productive and creative possibilities of adulthood within the reach of persons who are encumbered by mental disorders.

Late adulthood is when changes in health status may become more noticeable and the ability to compensate for decrements may become limited. As the brain ages, a person's capacity for certain mental tasks tends to diminish, even as changes in other mental activities prove to be positive and rewarding. Well into late life, the ability to solve novel problems can be enhanced through training in cognitive skills and problem-solving strategies.

The promise of research on mental health promotion notwithstanding, a substantial minority of older people are disabled, often severely, by mental disorders including Alzheimer's disease, major depression, substance abuse, anxiety, and other conditions. In the United States today, the highest rate of suicide—an all-too-common consequence of unrecognized or inappropriately treated depression—is found in older males. This fact underscores the urgency of ensuring that health

care provider training properly emphasizes skills required to differentiate accurately the causes of cognitive, emotional, and behavioral symptoms that may, in some instances, rise to the level of mental disorders, and in other instances be expressions of unmet general medical needs.

As the life expectancy of Americans continues to extend, the sheer number—although not necessarily the proportion—of persons experiencing mental disorders of late life will expand, confronting our society with unprecedented challenges in organizing, financing, and delivering effective mental health services for this population. An essential part of the needed societal response will include recognizing and devising innovative ways of supporting the increasingly more prominent role that families are assuming in caring for older, mentally impaired and mentally ill family members.

### References

- Acosta, F. X., Yamamoto, J., & Evans, L. A. (1982). Effective psychotherapy for low-income and minority patients. New York: Plenum Press.
- Ahr, P. R., & Holcomb, W. R. (1985). State mental health directors' priorities for mental health care. Hospital and Community Psychiatry, 36, 39-45.
- American Psychiatric Association. (1952). Diagnostic and statistical manual of mental disorders (1st ed.). Washington, DC: Author.
- American Psychiatric Association. (1968). Diagnostic and statistical manual of mental disorders (2nd ed.). Washington, DC: Author.
- American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). Diagnostic and statistical manual of mental disorders (3rd ed.-rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.
- Andreasen, N. C. (1997). Linking mind and brain in the study of mental illnesses: A project for a scientific psychopathology. *Science*, 275, 1586-1593.

- Andrews, G. (1995). Workforce deployment: Reconciling demands and resources. Australian and New Zealand Journal of Psychiatry, 29, 394-402.
- Anthony, W. A. (1993). Recovery from mental illness: The guiding vision of the mental health service system in the 1990s. *Psychological Rehabilitation Journal*, 16, 11-24.
- Bacote, J. C. (1994). Transcultural psychiatric nursing: Diagnostic and treatment issues. *Journal of Psychosocial Nursing*, 32, 42-46.
- Bailey, C. H., & Kandel, E. R. (1993). Structural changes accompanying memory storage. *Annual Review of Physiology*, 55, 397-426.
- Bandura, A. (1969). Principles of behavior modification. New York: Holt, Rinehart & Winston.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.
- Barondes, S. (1993). Molecules and mental illness. New York: Scientific American Library.
- Baum, A., & Posluszny, D. M. (1999). Health psychology: Mapping biobehavioral contributions to health and illness. *Annual Review of Psychology*, 50, 137-163.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). Cognitive therapy of depression. New York: Guilford Press.
- Beers, C. (1908). A mind that found itself: An autobiography. New York: Longmans Green.
- Beeson, P. G., Britain, C., Howell, M. L., Kirwan, D., & Sawyer, D. A. (1998). Rural mental health at the millennium. In Mandersheid, R. W., & Henderson, M. J. (Eds.), Mental Health United States, 1998 (DHHS Publication No. (SMA)99-3285, pp. 82-98). Washington, DC: U.S. Government Printing Office.
- Belle, D. (1990). Poverty and women's mental health. American Psychologist, 45, 385-389.
- Berrento-Clement, J. R., Schweinhart, L. J., Barnett, W. S., Epstein, A. S., & Weikart, D. P. (1984). Changed lives: The effects of the Perry Preschool Program on youths through age 19. (High/Scope Educational Research Foundation, Monograph 8). Ypsilanti, MI: High/Scope Press.

- Bird, D., Lambert, D., Hartley, D., Beeson, P., & Coburn, A. (1995). Integrating primary care and mental health services in rural America: A policy review and conceptual framework. Portland, ME: University of Southern Maine, Edmund Muskie Institute of Public Affairs, Maine Rural Health Research Center.
- Bird, D., Lambert, D., Hartley, D., Beeson, P., & Coburn, A. (1998). Rural models for integrating primary care and mental health services. Administration and Policy in Mental Health, 25, 287-308.
- Bowlby, J. (1951). Maternal care and mental health. Geneva: World Health Organization.
- Breger, L. (1974). From instinct to identity: The development of personality. Englewood Cliffs, NJ: Prentice-Hall.
- Brenner, C. (1978). An elementary textbook of psychoanalysis (2nd ed.). New York: International Universities Press.
- Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and posttraumatic stress disorder in the community: The 1996 Detroit Area Survey of Trauma. Archives of General Psychiatry, 55, 626-632.
- Britain, C. S. (1996). Making the connection in rural mental health. *Behavioral Healthcare Tomorrow*, 5, 67-69.
- Brody, T. M. (1994). Absorption, distribution, metabolism, and elimination. In T. M. Brody, J. Larner, K. Minneman, & H. Neu (Eds.), Human pharmacology: Molecular to clinical (2nd ed., pp. 49-61). St. Louis: Mosby-Year Book.
- Broman, C. L. (1996). Coping with personal problems. In H. W. Neighbors & J. S. Jackson (Eds.), *Mental health in black America* (pp. 117-129). Thousand Oaks, CA: Sage.
- Cabaj, R. P., & Stein, T. S. (1996). Textbook of homosexuality and mental health. Washington, DC: American Psychiatric Press.
- Campbell, J. (1993). The Well-Being Project: Mental health clients speak for themselves. Paper presented at the annual conference of Mental Health Services Research and Evaluation, Arlington, VA.
- Campbell, J. (1997). How consumers/survivors are evaluating the quality of psychiatric care. Evaluation Review, 21, 357-363.

- Campbell, J., Ralph, R., & Glover, R. (1993). From lab rat to researcher: The history, models, and policy implications of consumer/survivor involvement in research. Proceedings: Fourth annual national conference on state mental health agency services research and program evaluation (pp. 138-157). Alexandria, VA: The National Association of State Mental Health Program Directors.
- Campbell, J., & Schraiber, R. (1989). The Well-Being Project: Mental health clients speak for themselves. Sacramento, CA: California Department of Mental Health.
- Canino, G. J., Bird, H. R., Shrout, P. E., Rubio-Stipec, M., Bravo, M., Martinez, R., Sesman, M., & Guevara, L. M. (1987). The prevalence of specific psychiatric disorders in Puerto Rico. Archives of General Psychiatry, 44, 727-735.
- Center for Mental Health Services. (1998). Cultural competence standards in managed care mental health services for four underserved/underrepresented racial/ethnic groups. Rockville, MD: Author.
- Centers for Disease Control and Prevention. (1991). Strategic plan for the elimination of childhood lead poisoning. Atlanta, GA: Author.
- Chamberlin, J. (1978). On our own: Patient-controlled alternatives to the mental health system. New York: McGraw-Hill.
- Chamberlin, J. (1990). The ex-patient's movement: Where we've been and where we're going. *Journal of Mind and Behavior*, 11, 323-336.
- Chamberlin, J. (1995). Rehabilitating ourselves: The psychiatric survivor movement. *International Journal of Mental Health*, 24, 39-46.
- Chamberlin, J. (1997). Confessions of a non-compliant patient. *National Empowerment Center Newsletter*. Lawrence, MA: National Empowerment Center.
- Chamberlin, J., & Rogers, J. A. (1990). Planning a community-based mental health system. Perspective of service recipients. *American Psychologist*, 45, 1241-1244.
- Chambless, D. L., Baker, M. J., Baucom, D. H., Beutler,
  L. E., Calhoun, K. S., Crits-Christoph, P., Daiuto,
  A., Sanderson, W. C., Shoham, V., Stickle, T.,
  Williams, D. A., & Woody, S. R. (1998). Update on empirically validated therapies II. Clinical Psychologist, 51, 3-16.

- Chambless, D. L., Sanderson, W. C., Shohman, V., Bennett, J. S., Pope, K. S., Crits-Cristoph, P., Baker, M., Johnson, B., Woody, S. R., Sue, S., Beutler, L., Williams, D. A., & McMurry, S. (1996). An update on empirically validated therapies. Clinical Psychologist, 49, 5-18.
- Cheung, F. K., & Snowden, L. R. (1990). Community mental health and ethnic minority populations. Community Mental Health Journal, 26, 277-291.
- Ciarlo, J. A. (1998). Estimating and monitoring need for mental health services in rural frontier areas. Rural Community Mental Health, 24, 17-18.
- Clarke, G. N., Hawkins, W., Murphy, M., Sheeber, L. B., Lewinsohn, P. M., & Seeley, J. R. (1995). Targeted prevention of unipolar depressive disorder in an at-risk sample of high school adolescents: A randomized trial of a group cognitive intervention. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 312-321.
- Cohen, S., & Herbert, T. B. (1996). Health psychology: Psychological factors and physical disease from the perspective of human psychoneuroimmunology. Annual Review of Psychology, 47, 113-142.
- Coie, J., & Krehbiel, G. (1984). Effects of academic tutoring on the social status of low-achieving, socially rejected children. Child Development, 55, 1465-1478.
- Comas Diaz, L. (1989). Culturally relevant issues and treatment implications for Hispanics. In D. Koslow & E. Salett (Eds.), Crossing cultures in mental health (pp. 31-48). Washington, DC: SIETAR International.
- Commission on Chronic Illness. (1957). Chronic illness in the United States (Vol. 1). Cambridge, MA: Harvard University Press.
- Conwell, Y. (1996). Diagnosis and treatment of depression in late life. Washington, DC: American Psychiatric Press.
- Cook, J. A., & Jonikas, J. A. (1996). Outcomes of psychiatric rehabilitation service delivery. *New Directions in Mental Health Services*, 71, 33-47.
- Cook, K., & Timberlake, E. M. (1989). Cross-cultural counseling with Vietnamese refugees. In D. Koslow & E. Salett (Eds.), Crossing cultures in mental health (pp. 84-100). Washington, DC: SIETAR International.

- Cooper, C. R., & Denner, J. (1998). Theories linking culture and psychopathology: Universal and community-specific processes. Annual Review of Psychology, 49, 559-584.
- Cooper, J. R., Bloom, F. E., & Roth, R. H. (1996). The biochemical basis of neuropharmacology. New York: Oxford University Press.
- Cross, T., Bazron, B., Dennis, K., & Isaacs, M. (1989).

  Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed.

  Washington, DC: Georgetown University Child Development Center.
- Danbom, D. (1995). Born in the country: A history of rural America. Baltimore: Johns Hopkins University Press.
- Davidson, L., & Strauss, J. S. (1992). Sense of self in recovery from severe mental illness. *British Journal of Medical Psychology*, 65, 131-145.
- Deegan, P. E. (1988). Recovery: The lived experience of rehabilitation. *Psychiatric Rehabilitation Journal*, 11, 11-19.
- Deegan, P. E. (1997). Recovery and empowerment for people with psychiatric disabilities. *Journal of Social Work and Health Care*, 25, 11-24.
- del Pinal, J., & Singer, A. (1997). Generations of diversity: Latinos in the United States. *Population Bulletin*, 52, 1-44.
- Dixon, L. B., Lehman, A. F., & Levine, J. (1995). Conventional antipsychotic medications for schizophrenia. Schizophrenia Bulletin, 21, 567-577.
- Dohrenwend, B. P., Levav, I., Schwartz, S., Naveh, G., Link, B. G., Skodol, A. E., & Stueve, A. (1992). Socioeconomic status and psychiatric disorders: The causation-selection issue. *Science*, 255, 946-952.
- Duran, D. (1995). Impact of depression, psychological factors, cultural determinants and patient/care provider relationship on somatic complaints of the distressed Latina. Unpublished doctoral dissertation, University of Denver.
- DSM-I. See American Psychiatric Association (1952). DSM-II. See American Psychiatric Association (1968).
- DSM-III. See American Psychiatric Association (1980).
- DSM-III-R. See American Psychiatric Association (1987).
- DSM-IV. See American Psychiatric Association (1994). Dyer, J. (1997). Harvest of rage: Why Oklahoma City is only the beginning. Boulder, CO: Westview Press.

- Emerick, R. (1990). Self-help groups for former patients: Relations with mental health professionals. Hospital and Community Psychiatry, 41, 401-407.
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196, 129-136.
- Epstein, L. G., & Gendelman, H. E. (1993). Human immunodeficiency virus type 1 infection of the nervous system: Pathogenetic mechanisms. *Annals of Neurology*, 33, 429-436.
- Erikson, E. (1950). Childhood and society. New York: Norton.
- Farragher, B. (1998). Psychiatric morbidity following the diagnosis and treatment of early breast cancer. *Irish Journal of Medical Science*, 167, 166-169.
- Federation of Families for Children's Mental Health. (1999). Federation of Families for Children's Mental Health home page. [On-line]. Available: http://www.ffcmh.org
- Feldman, R. S. (1997). Development across the lifespan. Upper Saddle River, NJ: Prentice-Hall.
- Fischbach, G. D. (1992). Mind and brain. Scientific American, 267, 48-57.
- Frasure-Smith, N., Lesperance, F., & Talajic, M. (1993).

  Depression following myocardial infarction. Impact on 6-month survival. *Journal of the American Medical Association*, 270, 1819–1825.
- Frasure-Smith, N., Lesperance, F., & Talajic, M. (1995).

  Depression and 18-month prognosis after myocardial infarction. *Circulation*, 91, 999-1005.
- Frese, F. J. (1998). Advocacy, recovery, and the challenges of consumerism for schizophrenia. *Psychiatric Clinics of North America*, 21, 233-249.
- Frese, F. J., & Davis, W. W. (1997). The consumersurvivor movement, recovery, and consumer professionals. *Professional Psychology: Research* and Practice, 28, 243-245.
- Friedman, L. M., Furberg, C. D., & DeMets, D. L. (1996a). Fundamentals of clinical trials (3rd ed.). St. Louis: Mosby.
- Friedman, R. M., Katz-Levey, J. W., Manderschied, R. W., & Sondheimer, D. L. (1996b). Prevalence of serious emotional disturbance in children and adolescents. In R. W. Manderscheid & M. A. Sonnenschein (Eds.), Mental health, United States, 1996 (pp. 71-88). Rockville, MD: Center for Mental Health Services.

#### Mental Health: A Report of the Surgeon General

- Friesen, B. J., & Stephens B. (1998). Expanding family roles in the system of care: Research and practice. In M. R. Epstein, K. Kutash, & A. J. Duchnowski (Eds.), Outcomes for children and youth with behavioral and emotional disorders and their families: Programs and evaluation, best practices (pp. 231-259). Austin, TX: Pro-Ed.
- Fukuyama, F. (1995). Trust. New York: Free Press.
- Furlong-Norman, K. (1988). Community Support Network News, 5, 2.
- Gallo, J. J., Marino, S., Ford, D., & Anthony, J. C. (1995). Filters on the pathway to mental health care,
  II. Sociodemographic factors. *Psychological Medicine*, 25, 1149-1160.
- Garcia, M., & Rodriguez, P. F. (1989). Psychological effects of political repression in Argentina and El Salvador. In D. Koslow & E. Salett (Eds.), Crossing cultures in mental health (pp. 64-83). Washington, DC: SIETAR International.
- Garmezy, N. (1983). Stressors of childhood. In N. Garmezy & M. Rutter (Eds.), Stress, coping, and development in children (pp. 43-84). New York: McGraw-Hill.
- Garvey, M. A., Giedd, J., & Swedo, S. E. (1998). PANDAS: The search for environmental triggers of pediatric neuropsychiatric disorders. Lessons from rheumatic fever. *Journal of Child Neurology*, 13, 413-423.
- Gazzaniga, M. S., Ivry, R. B., & Mangun, G. R. (1998).

  Cognitive neuroscience: The biology of the mind.

  New York: W. W. Norton.
- Geller, J. L., Brown, J. M., Fisher, W. H., Grudzinskas, A. J., Jr., & Manning, T. D. (1998). A national survey of "consumer empowerment" at the state level. Psychiatric Services, 49, 498-503.
- General Accounting Office. (1977). Returning the mentally disabled to the community: Government needs to do more. Washington, DC: Author.
- Goldman, H. H. (1998). Deinstitutionalization and community care: Social welfare policy as mental health policy. *Harvard Review of Psychiatry*, 6, 219-222.
- Goldman, H. H., & Morrissey, J. P. (1985). The alchemy of mental health policy: Homelessness and the fourth cycle of reform. American Journal of Public Health, 75, 727-731.
- Gordon, M. F. (1964). Assimilation in American life. New York: Oxford University Press.

- Granger, D. A. (1994). Recovery from mental illness: A first person perspective of an emerging paradigm. In Ohio Department of Mental Health, *Recovery: The new force in mental health* (pp.1-13). Columbus, OH: Author.
- Grant, I., Atkinson, J. H., Hesselink, J. R., Kennedy, C. J., Richman, D. D., Spector, S. A., & McCutchan, J. A. (1987). Evidence for early central nervous system involvement in the acquired immunodeficiency syndrome (AIDS) and other human immunodeficiency virus (HIV) infections. Studies with neuropsychologic testing and magnetic resonance imaging. Annals of Internal Medicine, 107, 828-836.
- Grob, G. N. (1983). Mental illness and American society, 1875-1940. Princeton, NJ: Princeton University Press.
- Grob, G. N. (1991). From asylum to community. Mental health policy in modern America. Princeton, NJ: Princeton University Press.
- Grob, G. N. (1994). The mad among us: A history of the care of America's mentally ill. New York: Free Press
- Grover, P. L. (1998). Preventing substance abuse among children and adolescents: Family-centered approaches: Prevention enhancement protocols system reference guide. Rockville, MD: Center for Substance Abuse Prevention.
- Hannan, R. W. (1998). Intervention in the coal fields: Mental health outreach. Rural Community Mental Health. 24, 1-3.
- Harding, C., Strauss, J. S., & Zubin, J. (1992). Chronicity in schizophrenia: Revisited. *British Journal of Psychiatry*, 161, 27-37.
- Harrow, M., Sands, J. R., Silverstein, M. L., & Goldberg, J. F. (1997). Course and outcome for schizophrenia versus other psychotic patients: A longitudinal study. Schizophrenia Bulletin, 23, 287-303.
- Hatchett, S. J., & Jackson, J. S. (1993). African American extended kin systems: An assessment. In H. P. McAdoo (Ed.), Family ethnicity: Strength in diversity (pp. 90-108). Newbury Park, CA: Sage.
- Health Care Financing Administration. (1991).

  International classification of diseases (9th revision, clinical modification, ICD-9-CM).

  Washington, DC: Author.

- Hernandez, M., Isaacs, M. R., Nesman, T., & Burns, D. (1998). Perspectives on culturally competent systems of care. In M. Hernandez & M. R. Isaacs (Eds.), Promoting cultural competence in children's mental health services (pp. 1-25). Baltimore: Paul H. Brookes.
- Herring, R. D. (1994). Native American Indian identity: A people of many peoples. In E. Salett & D. Koslow (Eds.), Race, ethnicity, and self: Identity in multicultural perspective (pp. 170-197). Washington, DC: National Multicultural Institute.
- Holzer, C., Shea, B., Swanson, J., Leaf, P., Myers, J., George, L., Weissman, M., & Bednarski, P. (1986). The increased risk for specific psychiatric disorders among persons of low socioeconomic status. American Journal of Social Psychiatry, 6, 259-271.
- Horowitz, M. J. (1988). Introduction to psychodynamics: A new synthesis. New York: Basic Books.
- Horwitz, A. V. (1987). Help-seeking processes and mental health services. New Directions for Mental Health Services, 36, 33-45.
- Hough, R. L., Landsverk, J. A., Karno, M., Burnam, M.
  A., Timbers, D. M., Escobar, J. I., & Regier, D. A.
  (1987). Utilization of health and mental health services by Los Angeles Mexican Americans and non-Hispanic whites. Archives of General Psychiatry, 44, 702-709.
- Hoyt, D. R., Conger, R. D., Valde, J. G., & Weihs, K. (1997). Psychological distress and help seeking in rural America. American Journal of Community Psychology, 25, 449-470.
- Hoyt, D., O'Donnell D., & Mack, K. Y. (1995).
  Psychological distress and size of place: The epidemiology of rural economic stress. Rural Sociology, 60, 707-720.
- Hu, T. W., Snowden, L. R., Jerrell, J. M., & Nguyen, T.
  D. (1991). Ethnic populations in public mental health: Services choice and level of use. American Journal of Public Health, 81, 1429-1434.
- Hubel, D., & Wiesel T. (1970). The period of susceptibility to the physiological effects of unilateral eye closure in kittens. *Journal of Physiology*, 206, 419-436.

- Hunt, D. (1984). Issues in working with Southeast Asian refugees. In D. Koslow & E. Salett (Eds.), Crossing cultures in mental health (pp. 49-63). Washington, DC: SIETAR International.
- Indian Health Service. (1997). Trends in Indian health 1997. [On-line]. Available: http://www.ihs.gov//publicinfo/publications/trends97/trends97.asp
- Inhelder, B., & Piaget, J. (1958). The growth of logical thinking from childhood to adolescence: An essay on the construction of formal operational structures. New York: Basic Books.
- Institute of Medicine. (1990). Broadening the base of treatment for alcohol problems: Report of a study by a committee of the Institute of Medicine, Division of Mental Health and Behavioral Medicine. Washington, DC: National Academy Press.
- Institute of Medicine. (1994a). Reducing risks for mental disorders: Frontiers for preventive intervention research. Washington, DC: National Academy Press.
- Institute of Medicine. (1994b). Adverse events associated with childhood vaccines: Evidence bearing on causality. Washington, DC: National Academy Press.
- Institute of Medicine & Committee for the Study of the Future of Public Health. (1988). The future of public health. Washington, DC: National Academy Press.
- Interagency Council on the Homeless. (1991). Reaching out: A guide for service providers. Rockville, MD: The National Resource Center on Homelessness and Mental Health.
- Jenkins, E. J., & Bell, C. C. (1997). Exposure and response to community violence among children and adolescents. In J. Osofsky (Ed.), Children in a violent society (pp. 9-31). New York: Guilford Press.
- Jimenez, A. L., Alegria, M., Pena, M., & Vera, M. (1997). Mental health utilization in depression. Women & Health, 25(2), 1-21.
- Kalichman, S. C., Carey, P. M., & Johnson, B. T. (in press). Prevention of sexually transmitted HIV infection. A meta-analytic review of the behavioral outcome literature. Annals of Behavioral Medicine.
- Kanas, N. (in press). Group psychotherapy. In H. H. Goldman (Ed.), Review of general psychiatry (5th ed.). Norwalk, CT: Appleton and Lange.

- Kandel, E. R. (1998). A new intellectual framework for psychiatry. *American Journal of Psychiatry*, 155, 457-469.
- Kandel, E. R., Schwartz, J. H., & Jessell, T. M. (1995). Essentials of neural sciences and behavior. Stanford, CT: Appleton and Lange.
- Kaplan, G. A., Roberts, R. E., Camacho, T. C., & Coyne, J. C. (1987). Psychosocial predictors of depression. Prospective evidence from the human population laboratory studies. American Journal of Epidemiology, 125, 206-220.
- Kaplan, H. I., & Saddock, B. J. (1998). Synopsis of psychiatry (8th ed.). Baltimore: Williams and Wilkins.
- Karno, M., Jenkins, J. H., de la Selva, A., Santana, F., Telles, C., Lopez, S., & Mintz, J. (1987). Expressed emotion and schizophrenic outcome among Mexican-American families. *Journal of Nervous* and Mental Disease, 175, 143-151.
- Kazdin, A. E. (1996). Cognitive behavioral approaches. In M. Lewis (Ed.), Child and adolescent psychiatry: A comprehensive textbook (2nd ed., pp. 115-126). Baltimore: Williams and Wilkins.
- Kazdin, A. E. (1997). Behavior modification. In J. M. Weiner (Ed.), *Textbook of child and adolescent psychiatry* (2nd ed., pp. 821-842). Washington, DC: American Academy of Child and Adolescent Psychiatry.
- Kellam, D. G., & Rebok, G. W. (1992). Building developmental and etiological theory through epidemiologically-based preventive intervention trials. In J. McCord & R. E. Tremblay (Eds.), Preventing antisocial behavior: Interventions from birth through adolescence (pp. 162-195). New York: Guilford Press.
- Kessler, R. C., Berglund, P. A., Zhao, S., Leaf, P. J., Kouzis, A. C., Bruce, M. L., Friedman, R. M., Grossier, R. C., Kennedy, C., Narrow, W. E., Kuehnel, T. G., Laska, E. M., Manderscheid, R. W., Rosenheck, R. A., Santoni, T. W., & Schneier, M. (1996). The 12-month prevalence and correlates of serious mental illness, In Manderscheid, R. W., & Sonnenschein, M. A. (Eds.), Mental health, United States, 1996 (DHHS Publication No. (SMA) 96-3098, pp. 59-70). Washington, DC: U.S. Government Printing Office.

- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C.
  B., Hughes, M., Eshleman, S., Wittchen, H. U., & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. Results from the National Comorbidity Survey. Archives of General Psychiatry, 51, 8-19.
- Kimmel, W. A. (1992). Rural mental health policy issues for research: A pilot exploration. Rockville, MD: National Institute of Mental Health, Office of Rural Mental Health Research.
- Kinzie, J. D., Leung, P. K., Boehnlein, J., Matsunaga, D., Johnson, R., Manson, S., Shore, J. H., Heinz, J., & Williams, M. (1992). Psychiatric epidemiology of an Indian village. A 19-year replication study. Journal of Nervous and Mental Disease, 180, 33-39
- Klerman, G. L., Weissman, M. M., Rousaville, B. J., & Sherron, E. S. (1984). *Interpersonal psychotherapy of depression*. New York: Basic Books.
- Knitzer, J. (1982). Unclaimed children: The failure of public responsibility to children and adolescents in need of mental health services. Washington, DC: Children's Defense Fund.
- Kosslyn, S. M., & Shin, L. M. (1992). The status of cognitive neuroscience. Current Opinions in Neurobiology, 2, 146–149.
- La Mendola, W. (1997). Telemental health services in U.S. frontier areas (Frontier Mental Health Services Resource Network, Letter to the Field, No. 3). [Online]. Available: http://www.du.edu/frontier-mh/letter3.html.
- Lamb, H. R. (1994). A century and a half of psychiatric rehabilitation in the United States. *Hospital and Community Psychiatry*, 45, 1015-1020.
- Larson, D. B., Hohmann, A., Kessler, L. G., Meador, K. G., Boyd, J. H., & McSherry, E. (1988). The couch and the cloth: The need for linkage. *Hospital and Community Psychiatry*, 39, 1064-1069.
- Lawson, W. B., Hepler, N., Holladay, J., & Cuffel, B. (1994). Race as a factor in inpatient and outpatient admissions and diagnosis. Hospital and Community Psychiatry, 45, 72-74.
- Lebowitz, B. D., & Rudorfer, M. V. (1998). Treatment research at the millenium: From efficacy to effectiveness. *Journal of Clinical Psychopharmacology*, 18, 1.

- Lee, S. M. (1998). Asian Americans: Diverse and growing. *Population Bulletin*, 53, 1-39.
- Leete, E. (1989). How I perceive and manage my illness. Schizophrenia Bulletin, 8, 605-609.
- Lefley, H. P. (1996). Impact of consumer and family advocacy movement on mental health services. In B. L. Levin & J. Petrila (Eds.), Mental health services: A public health perspective (pp. 81-96). New York: Oxford University Press.
- Lefley, H. (1997). Mandatory treatment from the family's perspective. New Directions in Mental Health Services, 75, 7-16.
- Lehman, A. F., & Steinwachs, D. M. (1998). Translating research into practice: The Schizophrenia Patient Outcomes Research Team (PORT) treatment recommendations. Schizophrenia Bulletin, 24, 1-10.
- Leong, F. T., & Lau, A. S. (1998). Barriers to providing effective mental health services to Asian Americans. Manuscript submitted for publication.
- Levine, J. D., Gordon, N. C., & Fields, H. L. (1978). The mechanism of placebo analgesia. *Lancet*, 2, 654-657.
- Lin, K. M., Anderson, D., & Poland, R. E. (1997). Ethnic and cultural considerations in psychopharmacotherapy. In D. Dunner (Ed.), Current psychiatric therapy II (pp. 75-81). Philadelphia: W. B. Saunders.
- Lin, K., Inui, T. S., Kleinman, A. M., & Womack, W. M. (1982). Sociocultural determinants of the help-seeking behavior of patients with mental illness. Journal of Nervous and Mental Disease, 170, 78-85.
- Lombroso, P., Pauls, D., & Leckman, J. (1994). Genetic mechanisms in childhood psychiatric disorders.

  Journal of the American Academy of Child and Adolescent Psychiatry, 33, 921-938.
- Long, A. E. (1994). Reflections on recovery. In Ohio Department of Mental Health, *Recovery: The new force in mental health* (pp.1-16). Columbus, OH: Author.
- Long, L., & Van Tosh, L. (1988). Program descriptions of consumer-run programs for homeless people with mental illness. Rockville, MD: National Institute of Mental Health.

- Lopez, S. R. (in press). Cultural competence in psychotherapy: A guide for clinicians and their supervisors. In C. E. Watkins, Jr. (Ed.), Handbook of psychotherapy supervision. New York: Wiley.
- Lopez, S., Nelson, K., Polo, A., Jenkins, J., Karno, M., & Snider, K. S. (in press). Family warmth and course of schizophrenia in Mexican and Anglo Americans. *Journal of Abnormal Psychology*.
- Lu, F. G., Lim, R. F., & Mezzich, J. E. (1995). Issues in the assessment and diagnosis of culturally diverse individuals. In J. Oldham & M. Riba (Eds.), Review of Psychiatry (Vol. 14, pp. 477-510). Washington, DC: American Psychiatric Press.
- Manson, S. M. (1998). Mental health services for American Indians: Need, use, and barriers to effective care. Manuscript submitted for publication.
- McArthur, J. C., Hoover, D. R., Bacellar, H., Miller, E.
  N., Cohen, B. A., Becker, J. T., Graham, N. M.,
  McArthur, J. H., Selnes, O. A., Jacobson, L. P.,
  Visscher, B. R., Concha, M., & Saah, A. (1993).
  Dementia in AIDS patients: Incidence and risk factors. Multicenter AIDS Cohort Study.
  Neurology, 43, 2245-2252.
- McEwen, B. S. (1998). Protective and damaging effects of stress mediators. New England Journal of Medicine, 338, 171-179.
- McEwen, B. S., & Magarinos, A. M. (1997). Stress effects on morphology and function of the hippocampus. Annals of the New York Academy of Sciences, 821, 271-284.
- McGauhey, P., Starfield, B., Alexander, C., & Ensminger, M. E. (1991). Social environment and vulnerability of low birth weight children: A social-epidemiological perspective. *Pediatrics*, 88, 943-953.
- McLeod, J. D., & Kessler, R. C. (1990). Socioeconomic status differences in vulnerability to undesirable life events. Journal of Health and Social Behavior, 31, 162-172.
- Meadows, M. (1997). Mental health and minorities: Cultural considerations in treating Asians. Closing the Gap, 1-2.
- Melaville, B., & Asayesh, G. (1993). Together we can: A guide for crafting a profamily system of education and human services. Washington, DC: U.S. Department of Education.

- Mezzich, J. E., Kleinman, A., Fabrega, H., & Parron, D. L. (Eds.). (1996). Culture and psychiatric diagnosis: A DSM-IV perspective. Washington, DC: American Psychiatric Press.
- Milburn, N. G., & Bowman, P. J. (1991). Neighborhood life. In J. S. Jackson (Ed.), *Life in black America* (pp. 31-45). Newbury Park, CA: Sage.
- Minneman, K. (1994). Pharmacological organization of the central nervous system. In T. M. Brody, J. Larner, K. Minneman, & H. Neu (Eds.), *Human* pharmacology: Molecular to clinical. St. Louis: Mosby-Year Book.
- Miranda, J., & Green, B. L. (1999). The need for mental health services research focusing on poor young women. *Journal of Mental Health Policy and Economics*, 2, 73–89.
- Mohatt, D., & Kirwan, D. (1995). Meeting the challenge: Model programs in rural mental health. Rockville, MD: Office of Rural Health Policy.
- Mollica, R. F. (1989). Developing effective mental health policies and services for traumatized refugee patients. In D. Koslow & E. Salett (Eds.), Crossing cultures in mental health (pp. 101-115). Washington, DC: SIETAR International.
- Morrissey, J. P., & Goldman, H. H. (1984). Cycles of reform in the care of the chronically mentally ill. Hospital and Community Psychiatry, 35, 785-793.
- Mowbray, C., Moxley, D., Thrasher, S., Bybee, D., McCrohan, N., Harris, S., & Clover, G. (1996). Consumers as community support providers: Issues created by role innovation. Community Mental Health Journal, 32, 47-67.
- Munoz, R. F., Hollon, S. D., McGrath, E., Rehm, L. P., & VandenBos, G. R. (1994). On the AHCPR depression in primary care guidelines. Further considerations for practitioners. American Psychologist, 49, 42-61.
- Munoz, R. F., Ying, Y., Arman, R., Chan, F., & Gurza, R. (1987). The San Francisco depression prevention research project: A randomized trial with medical outpatients. In R. F. Munoz (Ed.), Depression prevention: Research directions (pp. 199-215). Washington, DC: Hemisphere Press.

- National Advisory Mental Health Council. (1993). Health care reform for Americans with severe mental illnesses: Report of the National Advisory Mental Health Council. American Journal of Psychiatry, 150, 1447-1465.
- National Alliance for the Mentally Ill. (1999). State mental illness parity laws Arlington, VA: Author.
- National Association of State Mental Health Program Directors. (1993). Putting their money where their mouths are: SMHA support of consumer and family-run programs. Arlington, VA: Author.
- National Institute of Mental Health. (1998). Genetics and mental disorders: Report of the National Institute of Mental Health's Genetics Workgroup. Rockville, MD: Author.
- National Mental Health Association. (1987). Invisible Children Project. Final report and recommendations of the Invisible Children Project. Alexandria, VA: Author.
- National Mental Health Association. (1993). A guide for advocates to all systems failure. An examination of the results of neglecting the needs of children with serious emotional disturbance. Alexandria, VA: Author.
- National Resource Center on Homelessness and Mental Illness. (1989). Self-help programs for people who are homeless and mentally ill. Delmar, NY: Policy Research Associates.
- Navia, B. A., Jordan, B. D., & Price, R. W. (1986). The AIDS dementia complex: I. Clinical features. Annals of Neurology, 19, 517-524.
- Neighbors, H. W., Bashshur, R., Price, R., Donavedian, A., Selig, S., & Shannon, G. (1992). Ethnic minority health service delivery: A review of the literature. Research in Community and Mental Health, 7, 55-71.
- Nelson, S. H., McCoy, G. F., Stetter, M., & Vanderwagen, W. C. (1992). An overview of mental health services for American Indians and Alaska Natives in the 1990s. Hospital and Community Psychiatry, 43, 257-261.
- Nemeroff, C. B. (1998). Psychopharmacology of affective disorders in the 21st century. *Biological Psychiatry*, 44, 517-525.
- O'Hare, W. P. (1996). A new look at poverty in America. *Population Bulletin*, 51, 1.

- O'Hare, W. P., Pollard, K. M., Mann, T. L., & Kent, M. M. (1991). African-Americans in the 1990s. *Population Bulletin*, 46, 1-40.
- Olds, D. L., Henderson, C. R., Jr., Tatelbaum, R., & Chamberlin, R. (1986). Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation. *Pediatrics*, 77, 16-28.
- Olweus, D. (1991). Bullying/victim problems among school children: Basic facts and effects of an intervention program. In K. Rubin & D. Pepler (Eds.), Development and treatment of childhood aggression (pp. 411-448). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Ortega, S. T., Johnson, D. R., Beeson, P. G., & Craft, B. (1994). The farm crisis and mental health: A longitudinal study of the 1980's. *Rural Sociology*, 59, 598-619.
- O'Sullivan, M. J., Peterson, P. D., Cox, G. B., & Kirkeby, J. (1989). Ethnic populations: Community mental health services ten years later. *American Journal of Community Psychology*, 17, 17-30.
- Padgett, D. K., Patrick, C., Burns, B. J., & Schlesinger, H. J. (1995). Use of mental health services by black and white elderly. In D. K. Padgett (Ed.), Handbook of ethnicity, aging, and mental health. Westport, CT: Greenwood Press.
- Pargament, K. I. (1997). The psychology of religion and coping: Theory, research, practice. New York: Guilford Press.
- Pasamanick, B. A. (1959). The epidemiology of mental disorder. Washington, DC: American Association for the Advancement of Science.
- Penninx, B. W., Guralnik, J. M., Pahor, M., Ferrucci, L., Cerhan, J. R., Wallace, R. B., & Havlik, R. J. (1998). Chronically depressed mood and cancer risk in older persons. *Journal of the National Cancer Institute*, 90, 1888-1893.
- Perry, P., Alexander, B., & Liskow, B. (1997).

  \*Psychotrophic drug handbook (7th ed.).

  Washington, DC: American Psychiatric Press.
- Pierce, C. M. (1992). Contemporary psychiatry: Racial perspectives on the past and future. In A. Kales, C.
  M. Pierce, & M. Greenblatt (Eds.), The mosaic of contemporary psychiatry in perspective (pp. 99-109). New York: Springer-Verlag.

- Pirkle, J. L., Brody, D. J., Gunter, E. W., Kramer, R. A., Paschal, D. C., Flegal, K. M., & Matte, T. D. (1994). The decline in blood lead levels in the United States. The National Health and Nutrition Examination Surveys. *Journal of the American Medical Association*, 272, 284-291.
- Plomin, R. (1996). Beyond nature vs nurture. In L. L. Hall (Ed.), Genetics and mental illness: Evolving issues for research and society (pp. 29-50). New York: Plenum Press.
- Plomin, R., Owen, M. J., & McGuffin, P. (1994). The genetic basis of complex human behaviors. *Science*, 264, 7133-7139.
- Plomin, R., DeFries, J. C., McClearn, G. E., & Rutter, M. (1997). *Behavioral genetics* (3rd ed.). New York: W. H. Freeman.
- Porter, R. (1987). A social history of madness: Stories of the insane. London: Weidenfeld and Nicholson.
- Potter, W. Z., Scheinin, M., Golden, R. N., Rudorfer, M. V., Cowdry, R. W., Calil, H. M., Ross, R. J., & Linnoila, M. (1985). Selective antidepressants and cerebrospinal fluid. Lack of specificity on norepinephrine and serotonin metabolites. Archives of General Psychiatry, 42, 1171-1177.
- President's Commission on Mental Health. (1978).

  Report to the President from the President's Commission on Mental Health (4 Vols.). Washington,
  DC: Superintendent of Documents, U.S. Government Printing Office.
- Priest, R. (1991). Racism and prejudice as negative impacts on African American clients in therapy. Journal of Counseling and Development, 70, 213-215.
- Primm, A. B., Lima, B. R., & Rowe, C. L. (1996). Cultural and ethnic sensitivity. In W. R. Breakey (Ed.), Integrated mental health services: Modern community psychiatry (pp. 146-159). New York: Oxford University Press.
- Rauch, K. D. (1997, December 9). Mental health care scarce in rural areas. The Washington Post Health, pp. 7-9.
- Regier, D. A., Narrow, W. E., Rupp, A., & Rae, D. S. (in press). The epidemiology of mental disorders treatment needs: Community estimates of "medical necessity." In G. Andrews & S. Henderson (Eds.), Unmet needs in mental health service delivery. Cambridge, England: Cambridge University Press.

- Regier, D. A., Farmer, M. E., Rae, D. S., Myers, J. K., Kramer, M., Robins, L. N., George, L. K., Karno, M., & Locke, B. Z. (1993a). One-month prevalence of mental disorders in the United States and sociodemographic characteristics: The Epidemiologic Catchment Area study. Acta Psychiatrica Scandinavica, 88, 35-47.
- Regier, D. A., Narrow, W. E., Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993b). The de facto US mental and addictive disorders service system. Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. Archives of General Psychiatry, 50, 85-94.
- Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. *Journal of Consulting and Clinical Psychology*, 61, 984-991.
- Rice, D. P., & Miller, L. S. (1996). The economic burden of schizophrenia: Conceptual and methodological issues, and cost estimates. In M. Moscarelli, A. Rupp, & N. Sartorious (Eds.), Handbook of mental health economics and health policy. Vol. 1: Schizophrenia (pp. 321-324). New York: John Wiley and Sons.
- Robins, L. N. (1970). Follow-up studies investigating childhood disorders. In E. H. Hare & J. K. Wayne (Eds.), *Psychiatric epidemiology* (pp. 29-68). London: Oxford University Press.
- Robins, L. N., & Regier, D. A. (1991). Psychiatric disorders in America: The Epidemiologic Catchment Area study. New York: Free Press.
- Rogers, C. (1961). On becoming a person. Boston: Houghton Mufflin.
- Rogers, E. S., Chamberlin, J., Ellison, M. L., & Crean, T. (1997). A consumer-constructed scale to measure empowerment among users of mental health services. *Psychiatric Services*, 48, 1042–1047.
- Rogler, L. H., Malgady, R. G., Costantino, G., & Blumenthal, R. (1987). What do culturally sensitive mental health services mean? The case of Hispanics. *American Psychologist*, 42, 565-570.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. Annals of the Academy of Medicine, Singapore, 8, 324-338.

- Sapolsky, R. M. (1996). Stress, glucocorticoids, and damage to the nervous system: The current state of confusion. *Stress*, 1, 1-19.
- Scheffler, R. M., & Miller, A. B. (1991). Differences in mental health service utilization among ethnic subpopulations. *International Journal of Law and Psychiatry*, 14, 363-376.
- Schlageter, C. (Ed.). (1990). *OMH News II* (1). Albany, NY: New York State Office of Mental Health.
- Schloss, P., & Williams, D. C. (1998). The serotonin transporter: A primary target for antidepressant drugs. *Journal of Psychopharmacology*, 12, 115-121.
- Schweizer, E., & Rickels, K. (1997). Placebo response in generalized anxiety: Its effect on the outcome of clinical trials. *Journal of Clinical Psychiatry*, 58(Suppl. 11), 30-38.
- Segal, S. P., Bola, J. R., & Watson, M. A. (1996). Race, quality of care, and antipsychotic prescribing practices in psychiatric emergency services. *Psychiatric Services*, 47, 282–286.
- Segal, S. P., Silverman, C., & Temkin, T. (1995). Measuring empowerment in client-run self-help agencies. Community Mental Health Journal, 31, 215-227.
- Seligman, M. E. (1995). The effectiveness of psychotherapy. The Consumer Reports study. *American Psychologist*, 50, 965-974.
- Shaffer, D., Fisher, P., Dulcan, M. K., Davies, M., Piacentini, J., Schwab-Stone, M. E., Lahey, B. B., Bourdon, K., Jensen, P. S., Bird, H. R., Canino, G., & Regier, D. A. (1996). The NIMH Diagnostic Interview Schedule for Children Version 2.3 (DISC-2.3): Description, acceptability, prevalence rates, and performance in the MECA Study. Methods for the Epidemiology of Child and Adolescent Mental Disorders Study. Journal of the American Academy of Child and Adolescent Psychiatry, 35, 865-877.
- Shalev, A. Y. (1996). Stress vs. traumatic stress: From acute homeostatic reactions to chronic psychopathology. In B. A. Van der Kolk, A. C. MacFarlane, & L. Weisaeth (Eds.), *Traumatic stress* (pp. 77-101). New York: Guilford Press.
- Shatz, C. J. (1993). The developing brain. In Readings from Scientific American: Mind and brain (pp. 15-26). New York: W. H. Freeman.

- Short, P., Feinleib, S., & Cunningham, P. (1994). Expenditures and sources of payment for persons in nursing and personal care homes (AHCPR Publication No. 9400-0032). Rockville, MD: Agency for Health Care Policy and Research.
- Silverman, P. R. (1988). Widow to widow: A mutual help program for the widowed. In R. Price, E. Cowen, R. P. Lorion, & J. Ramos-McKay (Eds.), Fourteen ounces of prevention: A case-book for practitioners (pp. 175-186). Washington, DC: American Psychological Association.
- Size, T. (1998). Would John Wayne ask for Prozac? Rural Health FYI, March/April, 5-7.
- Smith, H., & Allison, R. (1998). The national telemental health report. Washington, DC: Department of Health and Human Services, Center for Mental Health Services and the Office of Rural Health Policy.
- Snowden L. R. (1998). Barriers to effective mental health services for African Americans. Manuscript submitted for publication.
- Snowden, L. R. (1999). Mental health system reform and ethnic minority populations. Manuscript submitted for publication.
- Snowden, L. R. (in press-a). African American service use for mental health problems. *Journal of Community Psychology*.
- Snowden, L. R. (in press-b). Inpatient mental health use by members of ethnic minority groups. In J. M. Herrera, W. B. Lawson, & J. J. Smerck (Eds.), Cross cultural psychiatry. Chichester, England: John Wiley.
- Snowden, L. R., & Hu, T. W. (1996). Outpatient service use in minority-serving mental health programs. Administration and Policy in Mental Health, 24, 149-159.
- Snowden, L. R., & Cheung, F. K. (1990). Use of inpatient mental health services by members of ethnic minority groups. American Psychologist, 45, 347-355.
- Snowden, L. R., Hu, T. W., & Jerrell, J. M. (1995). Emergency care avoidance: Ethnic matching and participation in minority-serving programs. Community Mental Health Journal, 31, 463-473.

- Snowden, L., Storey, C., & Clancy, T. (1989). Ethnicity and continuation in treatment at a black community mental health center. *Journal of Community Psychology*, 17, 111-118.
- South Carolina SHARE (1995). National directory of mental health consumer and ex-patient organizations and resources. Charlotte, SC: Author.
- Spaniol, L. J., Gagne, C., & Koehler, M. (1997).

  Psychological and social aspects of psychiatric disability. Boston, MA: Center for Psychiatric Rehabilitation, Sargent College of Allied Health Professions, Boston University.
- Specht, D. (Ed.). (1998). Highlights of the findings of a national survey on state support of consumer/expatients activities. Holyoke, MA: Human Resource Association of the Northeast.
- Srole, L. (1962). Mental health in the metropolis: The Midtown Manhattan study. New York: McGraw-Hill.
- Stocks, M. L. (1995). In the eye of the beholder. *Psychiatric Rehabilitation Journal*, 19, 89-91.
- Sue, S., Fujino, D. C., Hu, L. T., Takeuchi, D. T., & Zane, N. W. (1991). Community mental health services for ethnic minority groups: A test of the cultural responsiveness hypothesis. *Journal of Consulting and Clinical Psychology*, 59, 533-540.
- Sue, S., & McKinney, H. (1975). Asian Americans in the community mental health care system. *American Journal of Orthopsychiatry*, 45, 111-118.
- Sue, S., Zane, N., & Young, K. (1994). Research on psychotherapy with culturally diverse populations. In A. E. Bergin & S. L. Garfield (Eds.), Handbook of psychotherapy and behavior change (4th ed., pp. 783-817). New York: Wiley.
- Sullivan, W. P. (1994). A long and winding road: The process of recovery from severe mental illness. *Innovations and Research*, 3, 19-27.
- Sullivan, G. M., Coplan, J. D., & Gorman, J. M. (1998). Psychoneuroendocrinology of anxiety disorders. *Psychiatric Clinics of North America*, 21, 397-412.
- Sussman, L. K., Robins, L. N., & Earls, F. (1987). Treatment-seeking for depression by black and white Americans. Social Science and Medicine, 24, 187-196.

- Takeuchi, D. T., Sue, S., & Yeh, M. (1995). Return rates and outcomes from ethnicity-specific mental health programs in Los Angeles. *American Journal of Public Health*, 85, 638-643.
- Takeuchi, D. T., & Uehara, E. S. (1996). Ethnic minority mental health services: Current research and future conceptual directions. In B. L. Levin & J. Petrila (Eds.), Mental health services: A public health perspective (pp. 63-80). New York: Oxford University Press.
- Taylor, O. (1989). The effects of cultural assumptions on cross-cultural communication. In D. Koslow & E. Salett (Eds.), Crossing cultures in mental health (pp. 18-27). Washington, DC: SIETAR International.
- Taylor, R. J. (1986). Religious participation among elderly blacks. *Gerontologist*, 26, 630-636.
- Thompson, J. (1997). The help-seeking behavior of minorities. Closing the Gap, 8.
- Turner, J., & TenHoor, W. (1978). The NIMH community support program: Pilot approach to a needed social reform. Schizophrenia Bulletin, 4, 319-348.
- Uba, L. (1994). Asian Americans: Personality patterns, identity, and mental health. New York: Guilford Press.
- U.S. Census Bureau. (1999). Resident population of the United States by sex, race, and Hispanic origin. [On-line]. Available: www.census.gov/population/estimates/nation/intfile3-1.txt
- U.S. Department of Education. (1990). Training students with learning disabilities for careers in the human services. OSERS News in Print! III(3).
- Van Tosh, L., & del Vecchio, P. (in press).

  Consumer/survivor-operated self-help programs: A
  technical report. Washington, DC: U.S. Department
  of Health and Human Services.
- Vega, W. A., & Kolody, B. (1998). Hispanic mental health at the crossroads. Manuscript submitted for publication.
- Vega, W. A., Kolody, B., Aguilar-Gaxiola, S., Alderete, E., Catalano, R., & Caraveo-Anduaga, J. (1998a). Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. Archives of General Psychiatry, 55, 771-778.

- Waldrop, M. M. (1993). Cognitive neuroscience: A world with a future. *Science*, 261, 1805-1807.
- Weissman, M. M., Myers, J. K., & Harding, P. S. (1978). Psychiatric disorders in a U.S. urban community: 1975-1976. American Journal of Psychiatry, 135, 459-462.
- Wells, K. B., & Sturm, R. (1996). Informing the policy process: From efficacy to effectiveness data on pharmacotherapy. *Journal of Consulting and Clinical Psychology*, 64, 638-645.
- Werner, E. E., & Smith, R. S. (1992). Overcoming the odds: High risk children from birth to adulthood. New York: Cornell Unviersity Press.
- Wolfe, B. E., & Goldfried, M. R. (1988). Research on psychotherapy integration: Recommendations and conclusions from an NIMH workshop. *Journal of Consulting and Clinical Psychology*, 56, 448-451.
- World Health Organization. (1992). International statistical classification of diseases and related health problems (10th revision, ICD-10). Geneva: Author.
- Yalom, I. D. (1995). The theory and practice of group psychotherapy (4th ed.). New York: Basic Books.
- Yeh, M., Takeuchi, D., & Sue, S. (1994). Asian American children in the mental health system: A comparison of parallel and mainstream outpatient service centers. *Journal of Clinical Child Psychology*, 23, 5-12.
- Yehuda, R. (1999). Biological factors associated with susceptibility to post-traumatic stress disorder. Canadian Journal of Psychiatry, 44, 34-39.
- Zhang, A. Y., Snowden, L. R., & Sue, S. (1998). Differences between Asian and white Americans' help-seeking patterns in the Los Angeles area. *Journal of Community Psychology*, 26, 317-326.
- Zhang, A., & Snowden, L. R. (in press). Ethnic characteristics of mental disorders in five communities nationwide. Cultural Diversity and Mental Health.
- Zinman, S., Harp, H. T., & Budd, S. (1987). Reaching across. Riverside, CA: California Network of Mental Health Clients.
- Zunzunegui, M. V., Beland, F., Laser, A., , & Leon, V. (1998). Gender difference in depressive symptoms among Spanish elderly, Social Psychiatry Psychiatric Epidemiology, 5, 175-205.

## **CHAPTER 3**

## CHILDREN AND MENTAL HEALTH

### **Contents**

		124
Theories of Development		
Development Viewed as a Series of Stages		
Intellectual Development		
Behavioral Development		125
Social and Language Development		
Parent-Child Relationships		125
Origins of Language		
Relationships With Other Children		
Temperament		
Developmental Psychopathology		
Current Developmental Theory Applied to Child Mental Health and Illness.	• • • • • • • • •	127
Overview of Risk Factors and Prevention		129
Risk Factors		129
Biological Influences on Mental Disorders		
Davids account Districtions		
Psychosocial Risk Factors		
Family and Genetic Risk Factors		
Family and Genetic Risk Factors Effects of Parental Depression		131
Family and Genetic Risk Factors		131 131
Family and Genetic Risk Factors		131 131 132
Family and Genetic Risk Factors  Effects of Parental Depression  Stressful Life Events  Childhood Maltreatment  Peer and Sibling Influences		131 131 132 132
Family and Genetic Risk Factors  Effects of Parental Depression  Stressful Life Events  Childhood Maltreatment  Peer and Sibling Influences  Correlations and Interactions Among Risk Factors		131 132 132 132
Family and Genetic Risk Factors  Effects of Parental Depression  Stressful Life Events  Childhood Maltreatment  Peer and Sibling Influences  Correlations and Interactions Among Risk Factors  Prevention		131 131 132 132 132 132
Family and Genetic Risk Factors  Effects of Parental Depression  Stressful Life Events  Childhood Maltreatment  Peer and Sibling Influences  Correlations and Interactions Among Risk Factors  Prevention  Project Head Start		131 132 132 132 132 133
Family and Genetic Risk Factors  Effects of Parental Depression  Stressful Life Events  Childhood Maltreatment  Peer and Sibling Influences  Correlations and Interactions Among Risk Factors  Prevention  Project Head Start  Carolina Abecedarian Project		131 132 132 132 132 133 134
Family and Genetic Risk Factors  Effects of Parental Depression  Stressful Life Events  Childhood Maltreatment  Peer and Sibling Influences  Correlations and Interactions Among Risk Factors  Prevention  Project Head Start		131 132 132 132 132 133 134

Elmira Prenatal/Early Infancy Project	134
Primary Mental Health Project	
Other Prevention Programs and Strategies	
Overview of Mental Disorders in Children 1	136
General Categories of Mental Disorders of Children	
Assessment and Diagnosis	
Evaluation Process	
Treatment Strategies	
Psychotherapy	
Psychopharmacology	140
Attention-Deficit/Hyperactivity Disorder	142
Prevalence	
Causes	144
Treatment	146
Pharmacological Treatment	146
Psychostimulants	
Dosing	
Side Effects	
Other Medications	
Psychosocial Treatment	
Behavioral Approaches	
Cognitive-Behavioral Therapy	
Psychoeducation	
Multimodal Treatments	
Treatment Controversies	
Overprescription of Stimulants	
Safety of Long-Term Stimulant Use	

Depression and Suicide in Children and Adolescents	150
Conditions Associated With Depression	151
Prevalence	151
Major Depression	
Dysthymic Disorder	
Suicide	
Course and Natural History	152
Causes	
Family and Genetic Factors	
Gender Differences	153
Biological Factors	153
Cognitive Factors	154
Risk Factors for Suicide and Suicidal Behavior	154
Consequences	155
Treatment	155
Depression	155
Psychosocial Interventions	.155
Pharmacological Treatment	156
Bipolar Disorder	157
Pharmacological Treatment	157
Suicide	157
Psychotherapeutic Treatments	157
Psychopharmacological Treatments	158
Intervention After a Suicidal Death of a Relative, Friend, or Acquaintance	158
Community-Based Suicide Prevention	159
Crisis Hotlines	
Method Restriction	159
Media Counseling	. 159
Indirect Case-Finding Through Education	. 159
Direct Case-Finding	. 160
Aggressive Treatment of Mood Disorders	. 160
Air Force Suicide Prevention Program—A Community Approach	. 160
Other Mental Disorders in Children and Adolescents	. 160
Anxiety Disorders	. 160

Separation Anxiety Disorder		160
Generalized Anxiety Disorder		161
Social Phobia	• • •	101
Treatment of Anxiety		162
Obsessive-Compulsive Disorder	• • •	162
Autism	• • •	103
Treatment	• • •	103
Disruptive Disorders		164
Treatment	• • •	166
Substance Use Disorders in Adolescents		166
Eating Disorders	• • • •	167
Services Interventions	• • • •	168
Treatment Interventions	• • • •	100
Outpatient Treatment	• • • •	160
Partial Hospitalization/Day Treatment	• • • •	109
Residential Treatment Centers	• • • •	109
Inpatient Treatment	• • • •	1/1
Newer Community-Based Interventions	• • • •	172
Case Management	• • • •	174
Team Approaches to Case Management	• • • •	175
Home-Based Services	• • • •	175
Family Preservation Programs Under the Child Welfare System	• • •	. 175
Multisystemic Therapy		. 175
Therapeutic Foster Care	· · · ·	. 170
Therapeutic Group Homes	• • • •	170
Crisis Services	• • • •	. 1/0
		170
Service Delivery		190
Service Utilization	• • • •	190
Utilization in Relation to Need	• • • •	190
Early Termination of Treatment	• • • •	191
Poverty and Utilization	• • • •	101
Culture and Utilization		. 101

Service Systems and Financing 1	182
Private Sector 1	182
Public Sector 1	
Children Served by the Public Sector	184
Managed Care in the Public Sector	
Culturally Appropriate Social Support Services	
Support and Assistance for Families	
New Roles for Families in Systems of Care	188
Family Support	
Family Support Groups	
Practical Support	
Integrated System Model	
Effectiveness of Systems of Care	
The Fort Bragg Study	
The Stark County Study	
Summary: Effectiveness of Systems of Care	
Conclusions	193
References	194

### CHILDREN AND MENTAL HEALTH

Spanning roughly 20 years, childhood and adolescence are marked by dramatic changes in physical, cognitive, and social-emotional skills and capacities. Mental health in childhood and adolescence is defined by the achievement of expected developmental cognitive, social, and emotional milestones and by secure attachments, satisfying social relationships, and effective coping skills. Mentally healthy children and adolescents enjoy a positive quality of life; function well at home, in school, and in their communities; and are free of disabling symptoms of psychopathology (Hoagwood et al., 1996).

The basic principles for understanding health and illness discussed in the previous chapter apply to children and adolescents, but it is important to underscore the often heard admonition that "children are not little adults." Even more than is true for adults, children must be seen in the context of their social environments, that is, family, peer group, and their larger physical and cultural surroundings. Childhood mental health is expressed in this context, as children proceed through development.

Development, characterized by periods of transition and reorganization, is the focus of much research on children and adolescents. Studies focus on normal and abnormal development, trying to understand and predict the forces that will keep children and adolescents mentally healthy and maintain them on course to become mentally healthy adults. These studies ask what places some at risk for mental illness and what protects some but not others, despite exposure to the same risk factors.

In addition to studies of normal development and of risk factors, much additional research focuses on mental illness in childhood and adolescence and what can be done to prevent or treat it. The science is challenging because of the ongoing process of development. The normally developing child hardly stays the same long enough to make stable measurements. Adult criteria for illness can be difficult to apply to children and adolescents, when the signs and symptoms of mental disorders are often also the characteristics of normal development. For example, a temper tantrum could be an expected behavior in a young child but not in an adult. At some point, however, it becomes clearer that certain symptoms and behaviors cause great distress and may lead to dysfunction of children, their family, and others in their social environment. At these points, it is helpful to consider serious deviations from expected cognitive, social, and emotional development as "mental disorders." Specific treatments and services are available for children and adolescents with such mental disorders, but one cannot forget that these disorders emerge in the context of an ongoing developmental process and shifting relationships within the family and community. These developmental factors must be carefully addressed, if one is to maximize the healthy development of children with mental disorders, promote remediation of associated impairments, and enhance their adult outcomes.

The developmental perspective helps us understand how estimated prevalence rates for mental disorders in children and adolescents vary as a function of the degree of impairment that the child experiences in association with specific symptom patterns. For example, the MECA Study (Methodology for Epidemiology of Mental Disorders in Children and Adolescents) estimated that almost 21 percent of U.S. children ages 9 to 17 had a diagnosable mental or addictive disorder associated with at least minimum impairment (see Table 3-1). When diagnostic criteria

#### Mental Health: A Report of the Surgeon General

Table 3-1. Children and adolescents age 9–17 with mental or addictive disorders, combined MECA sample, 6-month (current) prevalence\*

	(%)
Anxiety Disorders	13.0
Mood Disorders	6.2
Disruptive Disorders	10.3
Substance Use Disorders	2.0
Any Disorder	20.9

<sup>\*</sup> Disorders include diagnosis-specific impairment and Child Global Assessment Scale ≤70 (mild global impairment)

Source: Shaffer et al., 1996a

required the presence of *significant* functional impairment, estimates dropped to 11 percent. This estimate translates into a total of 4 million youth who suffer from a major mental illness that results in significant impairments at home, at school, and with peers. Finally, when *extreme* functional impairment is the criterion, the estimates dropped to 5 percent.

Given the process of development, it is not surprising that these disorders in some youth are known to wax and wane, such that some afflicted children improve as development unfolds, perhaps as a result of healthy influences impinging on them. Similarly, other youth, formerly only "at risk," may develop full-blown forms of disorder, as severe and devastating in their impact on the youth and his or her family as are the analogous conditions that affect adults. Characterizing such disorders as relatively unchangeable underestimates the potential beneficial influences that can redirect a child whose development has gone awry. Likewise, characterizing children with mental disorders as "only" the victims of negative environmental influences that might be fixed if societal factors were just changed runs the risk of underestimating the severity of these conditions and the need for focused, intensive clinical interventions for suffering children and adolescents. Thus, the science of mental health in childhood and adolescence is a complex mix of the study of development and the study of discrete conditions or disorders. Both perspectives are useful. Each alone has its limitations, but together they constitute a more fully informed approach that spans mental health and illness *and* allows one to design developmentally informed strategies for prevention and treatment.

### **Normal Development**

Development is the lifelong process of growth, maturation, and change that unfolds at the fastest pace during childhood and adolescence. An appreciation of normal development is crucial to understanding mental health in children and adolescents and the risks they face in maintaining mental health. Distortions in the process of development may lead to mental disorders. This section deals with the normal development of understanding (cognitive development) in young children and the development of social relationships and temperament.

### Theories of Development

Historically, the changes that take place in a child's psyche between birth and adulthood were largely ignored. Child development first became a subject of serious inquiry at the beginning of this century but was mostly viewed from the perspective of mental disorders and from the cultural mainstream of Europe and white America. Some of the "grand theories" of child development, such as that propounded by Sigmund Freud, grew out of this focus, and they unquestionably drew attention to the importance of child development in laying the foundation for adult mental health. Even those theories that resulted from the observation of healthy children, such as Piaget's theory of cognitive development, paid little attention to the relationship between the development of the "inner self" and the environment into which the individual was placed. In contrast, the interaction of an individual with the environment was central to the school of thought known as behaviorism.

Theories of normal development, introduced in Chapter 2, are presented briefly below, because they form the basis of many current approaches to understanding and treating mental illness and mental health problems in children and adults. These theories have not achieved the broader objective of explaining how children grow into healthy adults. More study and perhaps new theories will be needed to improve our ability to guide healthy child-rearing with scientific evidence.

### Development Viewed as a Series of Stages

Freud and the psychoanalyst Erik Erikson proposed a series of stages of development reflecting the attainment of biological objectives. The stages are expressed in terms of functioning as an individual and with others—within the family and the broader social environment (particularly in Erikson's theories) (see Chapter 2). Although criticized as unscientific and relevant primarily to the era and culture in which they were conceived, these theories introduced the importance of thinking developmentally, that is, of considering the ever-changing physical and psychological capacities and tasks faced by people as they age. They emphasized the concept of "maturation" and moving through the stages of life, adapting to changing physical capacities and new psychological and social challenges. And they described mental health problems associated with failure to achieve milestones and objectives in their developmental schemes.

These theories have guided generations of psychodynamic therapists and child development experts. They are important to understand as the underpinnings of many therapeutic approaches, such as interpersonal therapy, some of which have been evaluated and found to be efficacious for some conditions. By and large, however, these theories have rarely been tested empirically.

#### Intellectual Development

The Swiss psychologist Jean Piaget also developed a stage-constructed theory of children's intellectual development. Piaget's theory, based on several decades' observations of children (Inhelder & Piaget, 1958), was about how children gradually acquire the ability to understand the world around them through active engagement with it. He was the first to recognize that infants take an active role in getting to know their

world and that children have a different understanding of the world than do adults. The principal limitations of Piaget's theories are that they are descriptive rather than explanatory. Furthermore, he neglected variability in development and temperament and did not consider the crucial interplay between a child's intellectual development and his or her social experiences (Bidell & Fischer, 1992).

#### Behavioral Development

Other approaches to understanding development are less focused on the stages of development. Behavioral psychology focused on observation and measurement, explaining development in terms of responses to stimuli, such as rewards. Not only did the theories of the early pioneers (e.g., Pavlov, Watson, and Skinner) generate a number of valuable treatments, but their focus on precise description set the stage for current programs of research based on direct observation. Social learning theory (Bandura, 1977) emphasized role models and their impact on children and adolescents as they develop. Several important clinical tools came out of behaviorism (e.g., reinforcement and behavior modification) and social learning theory (cognitivebehavioral therapy). Both treatment approaches are used effectively with children and adolescents.

### **Social and Language Development**

### Parent-Child Relationships

It is common knowledge that infants and, for the most part, their principal caretakers typically develop a close bond during the first year of life, and that in the second year of life children become distressed when they are forcibly separated from their mothers. However, the clinical importance of these bonds was not fully appreciated until John Bowlby introduced the concept of attachment in a report on the effects of maternal deprivation (Bowlby, 1951). Bowlby (1969) postulated that the pattern of an infant's early attachment to parents would form the basis for all later social relationships. On the basis of his experience with disturbed children, he hypothesized that, when the mother was unavailable or only partially available